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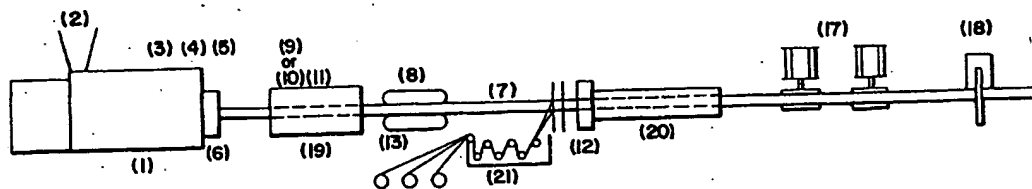
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**Urquhart-Dykes & Lord,**  
Tower House,  
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Leeds, West Yorkshire LS2 8PA (GB)**(54) Fiber reinforced thermoplastic structural member**

(57) In the manufacture of a structural member comprising a thermoplastic composite core with an exterior reinforcing layer, the core member is initially extruded in the shape of a profile (7). The profile is then contacted with reinforcing fiber (13) and resin to form the exterior reinforcing layer. The exterior thermosetting layer is cured to form a reinforcing layer. The structural member is preferably manufactured using a pultrusion method in which a tractor device (8) is used to provide linear movement of the profile from the extrusion head to the exterior

coating operation. The fiber-reinforced thermoset is coated on the entirety of the exterior of the profile or is applied only on a portion of the profile requiring reinforcement in a defined load-bearing direction. The preferred thermoplastic core comprises a polymer-fiber composite material. Such a structural member has significantly improved Young's modulus providing strength for applications such as telephone poles, electric poles, electric lighting poles, boat mast or keel applications, lumber replacements, structural members used in window and door manufacture, etc.

**FIG.1****EP 0 747 205 A3**



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## EUROPEAN SEARCH REPORT

Application Number  
EP 96 30 4099

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	WO 91 00466 A (JONACO GMBH) 10 January 1991	12-26	B29C70/54
A	* page 3, line 20 - line 29 *	1-11	
A	* page 4, line 20 - line 26 *		
A	US 4 851 458 A (HOPPERDIETZEL SIEGFRIED) 25 July 1989 * example 1 *	1	
A	EP 0 558 020 A (THEYSOHN FRIEDRICH FA) 1 September 1993 * column 4, line 30 - line 49; figure 1 *	12,15	
A	GB 2 202 784 A (WIJK & HOEGLUND) 5 October 1988 * page 4, line 15 - line 19 * * page 9, line 8 - line 14 *	1-26	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B29C B27N
Place of search THE HAGUE		Date of completion of the search 20 May 1997	Examiner Attalla, G
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons * : member of the same patent family, corresponding document</p>			

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